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AMENDMENTS TO THE CLAIMS

Claim 1 (canceled)

Claim 2 (currently amended): An improved process for ~~controlling micro-organisms~~ inhibiting bacterial growth in an aqueous process medium comprising adding a hop acid, characterized in, that the process comprises:

(a) dissolving the hop acid in an aqueous alkaline medium to form an aqueous alkaline hop acid solution;

(b) combining the aqueous alkaline hop acid solution with yeast to form a yeast/aqueous alkaline hop acid mixture, and introducing the yeast/aqueous alkaline hop acid mixture into ~~the~~an aqueous process medium; and

(c) continuously adding an effective amount of the aqueous alkaline hop acid solution, pre fermentation, to the aqueous process medium, wherein the pH of the aqueous alkaline hop acid solution is higher than the pH of the aqueous process medium ~~and wherein the hop acid is in free acid form.~~

Claim 3 (Previously presented): A process according to claim 2, wherein the aqueous alkaline hop acid solution contains from about 2 to about 40 wt. % of hop acid.

Claim 4 (Previously presented): A process according to claim 2, wherein the pH of the aqueous alkaline hop acid solution ranges from about 7.5 to about 13.0.

Claim 5 (Previously presented): A process according to claim 2, wherein the hop acid is a natural hop acid or derivative thereof; an isomerized hop acid or derivative thereof; or mixtures thereof.

Claim 6 (Original): A process according to claim 5, wherein the natural hop acid or derivative thereof is alpha acid, beta acid, tetrahydroalpha acid, hexahydrobeta acid, or mixtures thereof.

Claim 7 (Original): A process according to claim 5, wherein the isomerized hop acid or derivative thereof is isoalpha acid, rhoisoalpha acid, hexahydroisoalpha acid, or mixtures thereof.

Claim 8 (Previously presented): A process according to claim 2, wherein the aqueous alkaline medium comprises from about 1 to about 5 wt. % of potassium hydroxide, sodium hydroxide or mixtures of potassium hydroxide and sodium hydroxide.

Claim 9 (Previously presented): A process according to claim 2, wherein the temperature of the aqueous process medium is lower than 100° C.

Claim 10 (Previously presented): A process according to claim 2, wherein the concentrations of the hop acid within the aqueous process medium is in the range of 0.1 - 50 ppm.

Claim 11 (Previously presented): A process according to claim 2, wherein the aqueous process medium is a process medium in a yeast production process.

Claim 12 (Currently amended): A process according to claim 2, wherein the aqueous alkaline hop acid solution is prepared according to the following process:

a. heating an aqueous medium;
b. adding a hop acid to the heated aqueous medium of step (a) to form a solution wherein [[the]] a final concentration of the hop acid is within a predefined range of concentration;
c. adding an alkaline metal hydroxide to a second aqueous medium to obtain a solution having a pre-defined pH;
d. mixing the alkaline medium from step (c) with the hop acid aqueous medium from step (b);
e. keeping the mixture from step (d) in a ~~raised temperature range~~ temperature range used in step (a) within a pre-defined time period;
f. separating [[the]] a solution of hop acid from the mixture of step (e); and

g. cooling the solution of hop acid from step (f) to a temperature below about 20° C.

Claim 13 (Previously presented): A process according to claim 12, wherein the aqueous alkaline hop acid solution is cooled to a temperature below 10° C.

Claim 14 (Currently amended): An improved process for ~~controlling the~~ inhibiting bacterial growth in a distillery comprising:

(a) contacting a fermentable solution with an effective antibacterial amount of an isomerized alkaline hop acid solution or derivative thereof, to form an alkaline hop acid fermentable solution;

(b) adding the alkaline hop acid fermentable solution of step (a) to one or both of a yeast growing tank comprising yeast and to a fermentor tank; and

(c) adding the contents in the yeast growing tank to the fermentor tank.

~~a yeast growing tank and a fermentor tank containing a fermentable solution, the improvement comprising adding to the yeast and fermentor streams of the distillery prior to entering the fermentor and yeast growing tank, an effective antibacterial amount of an isomerized hop acid or derivative thereof.~~

Claim 15 (Original): A process according to claim 14 wherein, the isomerized hop acid or derivative thereof is isoalpha acid, rhoisoalpha acid, tetrahydroisoalpha acid, hexahydroisoalpha acid, or mixtures thereof.

Claim 16 (Currently amended): A process according to claim 14 wherein, the fermentable solution is stored as a concentrate and diluted with water prior to the addition of the isomerized alkaline hop acid in step (a) ~~is dosed into the yeast or fermentor feed streams immediately after dilution as an aqueous solution~~.

Claim 17 (Currently amended): A process according to claim 16 wherein, the pH of the ~~aqueous~~ isomerized alkaline hop acid solution ~~solution comprising the isomerized hop acid~~ is greater than the pH of the fermentable solution ~~yeast or fermentor streams~~.

Claim 18 (Currently amended): A process according to claim 14 wherein, the concentration of isomerized alkaline hop acid or derivative thereof in the alkaline hop acid fermentable solution ~~yeast and fermentor streams~~ ranges from about 1 to about 20 ppm.

Claim 19 (Currently amended): A process according to claim 14 wherein, the concentration of alkaline isomerized hop acid or derivative thereof in the alkaline hop acid fermentable solution yeast ~~and fermentor stre~~ams ranges from about 2 to about 4 ppm.

Claim 20 (Currently amended) A process according to claim 14, wherein the addition of the alkaline hop acid fermentable solution in step (b) occurs at a temperature of less than about 30° C.

Claim 21 (Previously presented): A process according to claim 2, wherein the temperature of the aqueous process medium is lower than 30° C.